

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Ricky W. Purcell, et al. Art Unit 3769
Serial No. 10/648,590
Filed August 25, 2003
Confirmation No. 4252
For COLD PACK
Examiner Aaron F. Roane

January 6, 2009

SECOND SUBSTITUTE APPEAL BRIEF

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TABLE OF CONTENTS

<u>1. REAL PARTY IN INTEREST</u>	1
<u>2. RELATED APPEALS AND INTERFERENCES</u>	1
<u>3. STATUS OF CLAIMS</u>	2
<u>4. STATUS OF AMENDMENTS</u>	2
<u>5. SUMMARY OF CLAIMED SUBJECT MATTER</u>	2
<u>6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL</u>	4
<u>7. ARGUMENT</u>	4
<u>8. SUMMARY</u>	12
<u>CLAIMS APPENDIX</u>	13
<u>EVIDENCE APPENDIX</u>	16
<u>RELATED PROCEEDINGS APPENDIX</u>	17

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This is a substitute appeal brief submitted to correct the Claims Appendix as requested in the Notification of Non-Compliant Appeal Brief mailed December 8, 2008. A first replacement Appeal Brief was submitted on June 7, 2007 in response to a Notice of Non-Compliant Appeal Brief mailed on May 18, 2007. The original appeal brief, which was submitted on April 4, 2007, was from the final rejection of the claims of the above-identified application made in the final Office action dated October 19, 2006. A Notice of Appeal was filed on January 19, 2007.

1. REAL PARTY IN INTEREST

The real party in interest in connection with the present appeal is Kimberly-Clark Worldwide, Inc. of 401 N. Lake Street, Neenah, Wisconsin 54957-0349, a corporation of the state of Delaware, owner of a 100 percent interest in the pending application.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Applicant which may be related to, directly affect or be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

3. STATUS OF CLAIMS

The present application was filed on August 25, 2003 with claims 1-28. By Preliminary Amendment dated February 21, 2005, the claims were amended, and new claims 29-39 were added. A non-final Office Action was mailed on April 4, 2005. A final Office Action was mailed on July 28, 2005. An RCE was filed on October 26, 2005. A non-final Office Action was mailed on December 8, 2005. A final Office Action was mailed on April 21, 2006. A Pre-Appeal Request for Review was mailed on June 26, 2006, with a Notice of Appeal. A Decision on Pre-Appeal Brief was mailed on August 15, 2006. A final Office Action was mailed on October 19, 2006.

Claims 6, 7, 10-12, 14-16, 29-31, 34, and 36 stand twice rejected, remain pending, and are the subject of the present appeal.

4. STATUS OF AMENDMENTS

An amendment in response to the Notice of Non-Compliant Appeal Brief dated December 8, 2008 is being filed concurrently with this Second Substitute Appeal Brief.

5. SUMMARY OF CLAIMED SUBJECT MATTER

This summary is presented in compliance with the requirements of Title 37 C.F.R. §41.37(c)(1)(v), mandating a "concise explanation of the subject matter defined in each of the independent claims involved in the appeal " Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed so as to limit the scope of the claims in any way.

Claim 6

Figures 3 and 4 and the specification at page 7, line 30 through page 8, line 20 illustrate and describe a cold pack 20. The cold pack 20 includes an enclosure 21 and a liquid 24 and solute 22 sealed inside the enclosure 21. The solute 22 and the liquid 24 (e.g., water) are segregated within the enclosure 21 by a membrane 26. The cold pack 20 further includes an absorbent core (e.g., an absorbent fibrous layer 27) within the enclosure 21 (see Figure 3).

The absorbent layer 27 retains an endothermic solution 28 that is formed within the enclosure 21 by rupturing the membrane 26 (see Figure 4) to cause mixing of the solute 22 and the liquid 24. Once the solute 22 and the liquid 24 are mixed to form the endothermic solution 28, the absorbent layer 27 retains and spreads the endothermic solution 28 throughout the enclosure 21 such that the cold pack 20 uniformly cools an injured portion of a body when the cold pack 20 is positioned on, or near, the body.

Claim 12

Figures 3 and 4 and the specification at page 7, line 30 through page 8, line 20 illustrate and describe a cold pack 20. The cold pack 20 includes an enclosure 21 and a liquid 24 and solute 22 sealed inside the enclosure 21. The solute 22 and the liquid 24 (e.g., water) are segregated within the enclosure 21 by a membrane 26. The cold pack 20 further includes an absorbent core within the enclosure 21 (see Figure 3) where the absorbent core may be formed of at least partially of fibers (e.g., pulp fiber).

The fibers in the absorbent core retain an endothermic solution 28 that is formed within the enclosure 21 by rupturing the membrane 26 (see Figure 4) to cause mixing of

the solute 22 and the liquid 24. Once the solute 22 and the liquid 24 are mixed to form the endothermic solution 28, the fibers in the absorbent core retain and spread the endothermic solution 28 throughout the enclosure 21 such that the cold pack 20 uniformly cools an injured portion of a body when the cold pack 20 is positioned on, or near, the body.

Dissolving the solute 22 within the liquid 24 produces a rapid endothermic reaction within the endothermic solution 28 that quickly drops the temperature of the cold pack 20 to its cooling temperature. The fibrous absorbent core retains and distributes the fast-acting endothermic solution throughout the cold pack 20 such that the cold pack 20 provides uniform and efficient cooling to an injured portion of a body.

The cold pack (i) quickly dissolves a solute within the liquid to produce a fast-acting endothermic solution; and (ii) uniformly cools an injured portion of a body by retaining and spreading the endothermic solution throughout the interior of the cold pack.

6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 6, 7, 10-12, 14-16, 29-31, 33 [sic] and 36 were rejected under 35 USC § 103(a) as being unpatentable over Dunshee, et al. (US 4,462,224) in view of Sabin (US 6,099,555) in view of Avery (US 5,486,206). [Claim 33 was previously cancelled; "33" should read "34".]

7. ARGUMENT

A) The Applicable Law under 35 U.S.C. §103(a)

To sustain a rejection under 35 U.S.C. 103, references must be cited that teach or suggest all the claim elements. M.P.E.P. § 2142 (citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d

1438 (Fed. Cir. 1991)). In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985); MPEP § 2141.02.

Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2143. The Examiner must avoid hindsight. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). The Office Action must further provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

B) Discussion of the rejection of claims 6, 7, 10-12, 14-16, 29-31, 33 [sic] and 36 under 35 USC § 103(a) as being unpatentable over Dunshee et al. (US 4,462,224) in view of Sabin (US 6,099,555) in view of Avery (US 5,486,206) .

Appellant initially notes that claim 33 is rejected even though claim 33 has been previously canceled. In addition, claim 34 does not appear to be rejected under 35 U.S.C. §103(a) .

Appellant respectfully submits that a *prima facie* case of obviousness has been not established against claims 6, 7, 10-12, 15-16, 29-31, 34 and 36 because (i) Dunshee, Sabin and Avery do not disclose either singularly, or in combination, the invention as claimed in claims 6, 7, 10-12, 15-16, 29-31, 34 and 36; (ii) the Examiner has not provided an adequate motivation to combine Dunshee, Sabin and Avery; and (iii) Avery teaches away from any combination with Sabin and Dunshee.

Dunshee

Dunshee is directed to a three-compartment, instant hot or cold, reusable cold pack for transferring heat to or from an object (see Dunshee Abstract). A solvent, a cold particulate material and a gelling agent are initially segregated within the cold pack by a couple of "single use" seams 24, 26 (see FIGS. 2 and 3 of Dunshee). The cooling (or heating) function of the cold pack is begun by fracturing the seams 24, 26 and mixing the solvent with the gelling agent and the cold particulate material.

Dunshee does not disclose (i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12. Appellant respectfully notes that Dunshee provides no teaching or suggestion as to an absorbent core that retains an endothermic solution because the cooling

gel which is formed upon mixing in Dunshee is actually the endothermic solution itself. Therefore, Dunshee does not disclose an absorbent core that retains the endothermic solution as indicated by the Examiner because nothing in the enclosure retains the cooling gel to spread the cooling gel throughout the enclosure.

Sabin

Sabin is directed to a cold pack that includes a gelling agent which is adhered as a permeable coating to a particulate "cold generating" material (see, col. 1, lines 49-52 of Sabin). The combined gelling agent and cold particulate material are initially segregated from a liquid within the cold pack by a "single use" frangible membrane (see, col. 2, lines 1-11 of Sabin). The cooling function of the cold pack is begun by fracturing the membrane and mixing the liquid with the combined gelling agent and cold particulate material.

Sabin does not disclose (i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12. Appellant respectfully notes that Sabin provides no teaching or suggestion as to an absorbent core that retains an endothermic solution because the cooling gel which is formed upon mixing in Sabin is actually the endothermic solution itself. Therefore, Sabin does not disclose an absorbent core that retains the endothermic

solution as indicated by the Examiner because nothing in the enclosure retains the cooling gel to spread the cooling gel throughout the enclosure.

Avery

Avery is directed to a "reusable" thermal pack that includes one or more pads which encapsulate a gel (see, col. 1, lines 53-57 of Avery). The gel in Avery includes a fibrous, flaked or shredded material (see, col. 2, lines 1-2 of Avery).

Avery does not disclose (i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12. Appellant respectfully notes that fibrous material disclosed in Avery does not retain an endothermic solution to spread the endothermic solution. In addition, the drawings in Avery illustrate that the fibers in Avery are not part of any type of structure (i.e., like a "core") such that Avery does not disclose an absorbent core.

I. Dunshee, Sabin and Avery do not teach or suggest every element of claims 6, 7, 10-12, 14-16, 29-31, 33 [sic] and 36.

As discussed above, none of the cited references teaches or suggests either singularly, or in combination, (i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout

the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12. Appellant again respectfully submits that Dunshee, Sabin and/or Avery do not teach or suggest an absorbent core, especially an absorbent core (or layer) that includes fibers which retain an endothermic solution.

II. There is no motivation or suggestion to combine Dunshee, Sabin and Avery.

The Final Office Action states at pages 4-5 that

"it would have been obvious to one having ordinary skill in the art to modify the invention of Dunshee et al., as taught by Sabin, to mix liquid (solvent), solute and gelling agent together as an alternate cooling modality and in order to provide a relatively comfortable cooling device, and as further taught by Avery, to provide the gel with a fibrous material in order to increase gel viscosity and heat capacity."

Appellant respectfully traverses these assertions and notes that the Examiner provides no support for such assertions. In addition, Appellant submits that the statements are mere conclusory statements of subjective belief because the statements are similar to the statements made by the Examiner and board in *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002).

"With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many

different devices for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill in the art would have been lead to this combination of references, simply to use' [use] that which the inventor taught against its teacher.' *W.L. Gore V. Garlock, Inc.*, 721 F. 2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)." *Lee*, at 1343, 1344.

Appellant respectfully submits that the only teaching or suggestion relating to (i) "a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 6; or (ii) "an absorbent core within said enclosure, said absorbent core being formed at least partially of fibers which retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure" as recited in claim 12 is found in Appellant's disclosure. Appellant respectfully notes that the Office Action has not provided objective evidence that there is an adequate motivation to combine all three of the cited references.

III. Avery teaches away from any combination with Dunshee and Sabin.

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art teaches away from the claimed combination. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set

out in the reference, or would be led in a direction divergent from the path the Appellant took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994); *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969); *In re Caldwell*, 319 F.2d 254, 256, 138 USPQ 243, 245 (C.C.P.A. 1963).

Appellant respectfully notes that Avery teaches away from any combination with Dunshee and/or Sabin because Avery teaches a "reusable" thermal pack (see Avery at col. 1, lines 53 and 56). In contrast, Dunshee and Sabin relate to a one-time use cold pack where the liquid and the cold particulate material are initially segregated and then mixed together to start the endothermic reaction. Once the liquid and the cold particulate material are mixed together in the cold packs disclosed in Dunshee and Sabin, the endothermic chemical reaction can not be carried out again. Appellant respectfully submits that based on the reusable thermal pack teachings of Avery, one of ordinary skill in the art would look away from the one-time use devices that are disclosed in Dunshee and Sabin.

8. SUMMARY

For the reasons argued above, claims 6, 7, 10-12, 14-16, 29-31, 34 and 36 were not properly rejected under § 103(a) as being unpatentable over Dunshee et al. (US 4,462,224) in view of Sabin (US 6,099,555) in view of Avery (US 5,486,206).

It is respectfully submitted that the claims are patentable over the cited art. Reversal of the rejection and allowance of the pending claim are respectfully requested. Since the fee for filing an appeal brief was previously paid with the original Appeal Brief submission on April 4, 2007, it is believed that no fee is currently due. However, the Commissioner is hereby authorized to charge any fees which may be required to Deposit Account No. 01-2384.

Respectfully submitted,

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CMG/LJH

CLAIMS APPENDIX

6. A cold pack comprising:

an enclosure;

a solute within said enclosure;

a liquid within said enclosure;

a membrane segregating said liquid from said solute, wherein rupturing said membrane mixes said liquid with said solute to produce an endothermic solution within said enclosure; and

a fibrous layer within said enclosure, said fibrous layer including fibers that retain said endothermic solution within said enclosure to spread said endothermic solution throughout the interior of said enclosure.

7. The cold pack of claim 6 wherein said solute is a powdered solute.

10. The cold pack of claim 6 wherein rupturing said membrane causes said endothermic solution to be retained by said fibrous layer.

11. The cold pack of claim 6 wherein said membrane is polyethylene.

12. A cold pack comprising:

an enclosure;

a solute within said enclosure;

a liquid within said enclosure;

a membrane segregating said liquid from said solute,
wherein rupturing said membrane mixes said liquid with said
solute to produce an endothermic solution within said
enclosure; and

an absorbent core within said enclosure, said absorbent
core being formed at least partially of fibers that retain
said endothermic solution within said enclosure to spread
said endothermic solution throughout the interior of said
enclosure.

14. The cold pack of claim 12 wherein said membrane
segregates the liquid from the absorbent core.

15. The cold pack of claim 12 wherein said membrane
segregates said absorbent core from said solute.

16. The cold pack of claim 15 wherein substantially all
of said solute is dissolved in said liquid to form said
endothermic solution before said endothermic solution is
retained by said absorbent core.

29. The cold pack of claim 6 wherein said membrane
segregates said fibrous layer from said solute.

30. The cold pack of claim 6 wherein said solute is ammonium nitrate.

31. The cold pack of claim 6 wherein said fibers are pulp fibers.

34. The cold pack of claim 12 wherein said fibers are pulp fibers.

36. The cold pack of claim 12 wherein said liquid is water.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.